OIL PRICE DECONTROL AND THE POOR

A SOCIAL POLICY FAILURE

A Staff Study
Prepared for
The Subcommittee on Investment, Jobs and Prices
of the
Joint Economic Committee

February 1982

J842-4

February 2, 1982

To the Members of the Joint Economic Committee:

I am pleased to transmit to you a study entitled "Oil Price Decontrol and the Poor: A Social Policy Failure" which evaluates whether Federal efforts to achieve energy goals through the decontrol of of oil prices and social equity goals through income assistance programs have been successful. The study is especially pertinent in view of increased discussion of proposals to accelerate the decontrol of natural gas prices, coupled with a windfall profit tax.

This study shows that whatever its merits as an energy policy, decontrol coupled with income distribution is a social equity failure. The study found that between two-thirds and three-quarters of the income loss suffered by the poor was not offset by income assistance programs.

The study was prepared by the Committee staff at the request of Senator Edward M. Kennedy with the assistance of the Consumer Energy Council of America Research Foundation.

I hope that this study will make an important contribution to the discussion of the energy equity debate.

Sincerely,

Henry S. Reuss
Chairman, Joint Economic Committee

February 1, 1982

The Honorable Henry S. Reuss
Chairman, Joint Economic Committee
United States Congress

Dear Mr. Chairman:

I am pleased to transmit to you a study entitled "Oil Price Decontrol and the Poor: A Social Policy Failure" which assesses the impact of the policy of permitting U.S. oil prices to rise to world levels on social equity.

The study was prepared by Committee staff with the assistance of the Consumer Energy Council of America Research Foundation under contract with the Joint Economic Committee. The project was supervised for the Committee by James Cubie.

It should be understood that the views in this study are those of the authors and do not necessarily represent the views of the Joint Economic Committee or any of its Members.

Sincerely,

James K. Galbraith
Executive Director, Joint Economic Committee

SUMMARY

Proposals to permit all energy prices to rise to world levels, coupled with income assistance programs for the poor have received broad support in the energy policy community. However, a comparison of the loss in purchasing power caused by energy price increases, with the offsetting energy assistance program, shows that energy income assistance programs failed to compensate the poor for between two-thirds and three-quarters of the lost purchasing power.

This study assesses the factors that have contributed to this loss of purchasing power. The three key findings are:

(1) The major oil price increases of the 1979-1981 period were primarily due to domestic oil pricing decisions -- not high oil import costs. Since June 1979, when President Carter's phased oil decontrol program began, the national oil bill increased by $206.7 billion. However, only 38 percent of that increase resulted from higher costs of imported oil. The rest of the cost increase was caused by the 1979 decontrol decision (33 percent) and previous pricing policy decisions in the Emergency Petroleum Allocation Act and other statutes (28 percent).

(2) Oil price increases have caused a major loss of purchasing power for low income people. According to the analysis, oil price increases appear to have taken $14.7 billion from low income people. The loss of purchasing power caused by domestic pricing decisions has been $9.1 billion, and the loss from higher oil import costs has been $5.6 billion.

(3) Federal energy assistance programs have only offset between one-quarter and one-third of the burden of rising oil prices. Federal appropriations for energy assistance during the 1979-81 period totaled $4.2 billion. Actual delivered benefits were approximately $3.6 billion. When these efforts to offset rising energy prices are compared to actual loss of purchasing power, it is clear that oil decontrol has been a social policy failure.

The loss of purchasing power of the poor not offset by energy assistance programs was $11.1 billion, or 76 percent of the total loss. Taking into account only domestic oil price increases, the loss of income not offset by assistance was still $5.5 billion, or 60 percent of the total loss.

FOREWORD BY
SENATOR EDWARD M. KENNEDY

DECONTROL: THE HISTORICAL SETTING

The impact of rising energy prices on personal income has been a central issue in the energy pricing debate of the 1970s. At the present time, the Congress and the public are engaged in a discussion on the future course of natural gas pricing in the United States. There are presently many proposals for accelerating the schedule established by the Natural Gas Policy Act in 1980. Just as in the debate over oil prices, the effect of natural gas decontrol on consumers, especially poor consumers, is a major source of controversy. Numerous proposals for ameliorating that impact through energy assistance programs have been proposed -- using either general revenues or a specially-earmarked windfall profit tax.

Recently the Senate endorsed President Reagan's decision to permit the prices that Americans pay for gasoline and heating oil to rise to world-OPEC price levels. Price controls on oil have existed for many years in the United States. From the 1930's through 1973, American oil prices were artificially increased above world price levels through a combination of market demand pro-rationing and oil import quotas. Market demand pro-rationing provided a floor under which oil prices would not fall by

limiting the amount of oil that any producer could pump in a given month to a level which State regulatory commissions believed would support a price they judged to be fair to oil producers. These price controls were enforced on the Federal level through the Connolly Hot Oil Act which made it a Federal crime to ship in interstate commerce oil produced above the level permitted by a State commission. At one point, the governor of Texas even found it necessary to use the National Guard to prevent oil production which was lowering prices. The second major method for creating artifically high oil prices was the use of the import quota. The import quota program began in 1959 and was finally phased out by President Nixon in 1973.

During the latter part of the Nixon Administration, however, a brief experiment in price controls favoring consumers rather than producers began. As part of a general effort to control inflation, the Emergency Petroleum Allocation Act, which placed controls on oil prices, was enacted in 1973. Then in 1975, in order to mitigate the impact of the strong 1973-1974 OPEC price hikes on economic growth and inflation as well as to achieve certain equity goals, Congress passed, and President Ford signed the Energy Policy and Conservation Act, which provided for continued controls. These price controls continued until 1979 when President Carter was faced with a decision whether to begin phasing out price controls immediately, or in 1980 and 1981. In April 1979, President Carter decided to phase out the controls on

the two-thirds of oil production still under controls by September 1981. One of President Reagan's first decisions (January 28, 1981) was to immediately phase out all oil price controls. Now that the last chapter of the oil price debate is written, we have an ideal opportunity to examine how energy policy is transformed as it is translated into political reality.

Decontrol and Social Equity

The decontrol of oil occurred for many reasons, including a desire by the oil companies to raise their profits. However, it also reflected a consensus that developed in the academic policy community that our national energy pricing policy should permit oil prices to rise to world levels, while the harsh impact of increased prices would be offset with income assistance to the poor. Numerous academic analyses and editorials supported this approach.

It is also clear that solving the income equity problem was a key concern of President Carter's in his decision to decontrol oil prices. He stated in June 1979 that:

> The removal of price controls on oil will impact all Americans, but the burden will be heaviest for low-income households, those who spend the largest proportion of their dollars on heat, electricity, transportation, and other energy-related necessities. The major purpose, therefore, of the Energy Security Fund (funded by the Windfall Profit Tax) will be to provide assistance to those families which will help offset the increase in fuel prices resulting from decontrol.

In the debate on the House and Senate Floors and in the Committee reports on passage of the windfall profit tax income equity was a central theme of the debate. For example, the Senate Finance Committee stated:

> The recent increases in energy prices will impose severe burdens on lower-income households... The Committee believes that a fair sharing of the costs of higher energy prices requires that part of the tax on oil producers and royalty owners be used to finance assistance to lower-income families. The Committee substitute includes programs designed to provide such assistance.

The Statement of the Findings of the Windfall Profit Tax itself concluded that:

> The cost of essential home energy imposes a disproportionately large burden on fixed-income, lower income, and middle-income households.... and that it is the purpose of this (Act) to provide assistance...to offset the rising costs of home energy that are excessive in relation to household income. (P.L. 96-223, Section 302 (a)(b)).

As we look back on the history of oil price controls and look forward to a decision on natural gas pricing, we have a unique

opportunity to test whether such intellectually attractive ideas as decontrol with low income assistance are politically viable.

The Experience with Pricing Decisions

This study examines the four occasions in the last five years in which the Federal Government has faced the energy pricing and equity issue. These four policy decisions will be examined briefly and the most significant -- the 1979 decontrol of crude oil prices -- will be examined in detail in later chapters.

Crude Oil Equalization Tax

The Administration first faced oil pricing and equity issues in 1977 when the Carter Administration proposed permitting the price of crude oil to rise to world levels through a crude oil equalization tax. This program would have allowed prices to rise to world levels but would have rebated to consumers the difference between that price and the regulated price. The rationale behind this approach was that since new oil prices had already risen by 124 percent over the three previous years, major new increases in oil prices were unnecessary because there was already a major economic incentive to drill for oil. Administration spokesmen argued that oil drilling rates were at the highest levels in many years. However, it was also the conviction of the Administration that if prices were held below the world price, consumers would receive the wrong signals.

Rather than being told that they should increase their efficiency, they were being told energy was cheaper than its replacement value. The American economy, they believed, was importing more oil than it should and was too slow in its transition to an era of higher energy prices. The Crude Oil Equalization Tax had strong support in the academic and policy community. Congress, however, was unwilling to see so much money raised and then lost again through rebates. In modified form, the crude oil equalization tax passed the House. However, in the Senate it ran into very strong opposition and never came to a vote on the Senate Floor.

Incremental Pricing of Natural Gas

The Carter Administration faced the energy pricing equity issue a second time in its consideration of natural gas pricing. Wellhead controls on the price of natural gas had existed for many years. However, delivery interruptions in the mid-1970's and fears of long-term shortages of natural gas, convinced the Administration and Congress that changes in the pricing formulas were necessary. In order to deal with the equity issues, the Administration proposed a plan of incremental pricing of natural gas. Under this proposal, large industrial and commercial users would pay the incremental price of natural gas. It was assumed that the incremental price of natural gas was roughly equivalent to the price of the oil substitute. There were numerous debates

on which type of oil was the proper base for establishing what the incremental price should be. Rather than choosing the incremental fuel, Congress gave the decision to the Federal Energy Regulatory Commission (the Federal Power Commission's successor).

Incremental pricing protected residential users by requiring the industrial consumers to pay the higher prices of new natural gas. This policy was based on the rationale that large industrial and commercial users both had more motivation and more ability to increase their efficiency than residential consumers. It was assumed that they would be more sensitive to the market signals. After many months of debate -- at times acrimonious -- the Congress finally adopted a modified program of incremental pricing and the bill was signed into law by President Carter in 1978.

This legislative solution to the decontrol/income protection dilemma was undercut by the Federal Energy Regulatory Commission, which interpreted incremental costs in such a way that residential consumers suffered a major loss in income. For example, since NGPA was passed, the average residential consumer has spent an additional $350. Incremental pricing has only saved about $18.

Under pressure from industrial interests, Congress even refused to accept the Administration's implementation of the

second phase of the incremental pricing program. For all practical purposes the program is dead.

Crude Oil Decontrol

Third, in 1979, President Carter began a process of decontrolling oil prices. At that time, he promised he would prod Congress into passing a windfall profit tax, a key purpose of which was to provide energy assistance for the poor. This windfall profit tax is the single largest tax in American history. In theory it will garner over $200 billion for the Federal treasury between 1980 and 1990. It provided a source of revenue of unprecedented size through which a program of income assistance for poor families could be drawn. Congress did adopt a small energy assistance program. A poor family in New England receives as a result of this program, about $1 for every $4 that their energy bills have gone up. The Reagan Administration in its first budget proposals proposed cutting the low income energy assistance program by 25 percent. Congress rejected this cut. But even after Congress reinstituted these funds, the poor have suffered a major loss of income. As the subsequent chapters in this study show, between two-thirds and three-quarters of the loss in purchasing power caused by energy price increases has <u>not</u> been offset by income assistance programs. Virtually all of the revenue from the Windfall Profit Tax is being used for general revenue purposes.

Gasoline Tax

Finally, in 1979 and 1980 the Carter Administration faced the issue for the last time when it proposed a 10¢ per gallon gasoline tax. This proposal was not accompanied by any mechanism to balance its effects on equity with rebates. Its only purpose was to balance the budget.

The idea of raising oil prices to reduce consumption or increase production along with some kind of protection for the poor is very appealing in its intellectual symmetry. But an energy policy is measured by more than the number of wells drilled or the miles of pipeline constructed. An energy policy, in the final analysis, like all government policies, must be tested by whether it improves the lives of all people, especially those least able to protect themselves.

It is clear from the four attempts to face this issue in the last five years that it clearly has been a social equity failure.

CHAPTER I. THE MAGNITUDE OF THE OIL PRICE SHOCK

Price Increases

The price of crude oil was decontrolled during a period of extreme instability in the world oil market. In the two years after President Carter decided to decontrol oil prices (June 1979-June 1981) the average wellhead price of domestic crude increased by 200 percent (see Table I-1). The refiner acquisition cost for domestic crude increased by 184 percent over the same period. The increase in refiner acquisition costs for imported crude was only half as large as that for domestic -- 99 percent. 1/

This rapid increase in crude oil costs was reflected in rapid increases in petroleum product prices. Between June 1979 and June 1981, heating oil prices increased 95 percent. Gasoline prices (under controls over most of the period) increased 65 percent and jet fuel increased 98 percent. These price increases far outstripped the general rate of inflation, which was running at 27 percent.

The overall increase in oil prices can be attributed to three different factors.

TABLE I-1

RISING PRICES SINCE DECONTROL

	May 1979	June 1981	Percentage Increase
Refiner Acquisition Costs a/			
Domestic Crude ($/bbl)	12.41	35.21 b/	184.7
Imported Crude ($/bbl)	19.00	37.84 b/	99.2
Consumer Prices c/			
Heating Oil ($/Gallon)	.656	1.259	91.9
Gasoline ($/gallon)	.823	1.362	65.5
Energy (index, 1967=100)	260.8	414	58.7
Consumer Price Index c/			
All Items (index, 1967=100)	214.1	271.3	26.7
All Non-energy Items (index, 1967=100)	210.7	260.2	23.4

a/ Monthly Energy Review
b/ May 1981
c/ Consumer Price Index

(1) At the time of decontrol, imported oil was about 40 percent of crude refinery input. The cost of this oil increased rapidly. 2/

(2) About 30 percent of domestically produced oil had already been decontrolled prior to President Carter's decontrol decision in June 1979 by the Emergency Petroleum Allocation Act (EPAA), the Energy Policy and Conservation Act (EECA), and the Energy Conservation and Production Act (ECPA). 3/ The prices for these categories of oil moved up rapidly, matching the increase in import prices.

In early 1979, oil that had been decontrolled by prior decisions was selling profitably at $15 per barrel. By the end of 1979, it was selling at $30 per barrel. Technically, the increased prices for this oil was not defined to be a result of decontrol and profits on this oil was not defined as a windfall.

(3) The June 1979 decision to decontrol the remaining 70 percent of domestic production in a phased manner permitted the prices of this oil to rise very rapidly.

Separating the total increase in oil prices into these three causes is important for the analysis of the equity issues examined in this study. At the time of decontrol, a commitment was made to offset the burden that rising prices would place on the poor. That commitment was not clearly defined at the time. Although the dollar sum was fixed as 25 percent of the windfall

profits revenue (estimated at the time to be $56 billion), the actual burden that was to be offset was not clearly stipulated. 4/ On some occasions it was stated that only the impact of decontrol was to be cushioned. 5/ On others, the commitment to the poor was tied to the impact of decontrol and OPEC price increases. 6/ On still other occasions it was tied to the overall increase in energy prices. 7/ If one is to assess how well the government has lived up to its commitment, it is necessary to have an estimate of what the commitment would have been according to each of the definitions of the burden. Here it is important to note that the Congressional commitment included both domestic and foreign caused price increases.

In assessing the economic impact of rapidly rising oil prices, it is particularly useful to know the full magnitude of the increases that were caused by the domestic sector (i.e., the sum of both earlier price decontrol decisions and the June 1979 decontrol decision). If the rapid increase in oil prices in general was judged to be placing an unbearable burden on the economy, then Congress or the Executive Branch could have made policy decisions affecting all domestically produced oil which would have moderated the overall price increase. 8/

The Increase in the National Oil Bill

Table I-2 presents the actual bill paid by the Nation for crude oil, calculated as refiner costs. 9/ The total oil bill, including domestic and imported purchases, has increased from $66.1 billion in 1978 to a projected $173 billion in 1981. The cumulative increase (over 1978) is $206.7 billion, with $28.3 billion occurring in 1979, $71.5 billion occurring in 1980, and $106.9 billion projected for 1981.

TABLE I-2

THE INCREASE IN THE NATIONAL OIL BILL
(Refiner Acquisition Cost of Crude Oil)

	Domestic Oil				Imported Oil				Total Bill	
	Input to Refineries (000 BBL/day)	Average Refiner Acquisition Cost ($/BBL)	Annual Bill ($ Bil)	Incr. In Bill ($ Bil) (1978 as Base)	Input to Refineries (000 BBL/day)	Average Refiner Acquisition Cost ($/BBL)	Annual Bill ($ Bil)	Incr. In Bill ($ Bil) (1978 as Base)	Annual $ Billion	Increase w/1978 Base ($ Billion) (1978 as Base)
1978	8549	10.61	33.1		6195	14.57	33.0		66.1	
				10.2				18.0		28.3
1979	8317	14.27	43.3		6452	21.67	51.0		94.4	
				40.4				31.0		71.5
1980	8313	24.25	73.5		5177	33.89	64.0		137.6	
				77.3				29.6		106.9
1981	8550	35.37	110.4		4452	38.51	62.6		173.0	
Cumulative Total				127.9				78.6		206.7

Source: Monthly Energy Review
Note: Numbers may not add due to rounding.

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The bill for oil imports increased from $33 billion in 1978 to a projected $62.6 billion in 1981. The oil import bill increased (over 1978) by $18.0 billion in 1979, and $31.0 billion in 1980, with $29.6 billion projected for 1981. The cumulative increase in the oil import bill was $78.6 billion or about 38 percent of the total.

The bill for domestic oil increased from $33.1 billion in 1978 to a projected $110.4 billion in 1981. The annual increases (over 1978) are $10.2 billion, $40.4 billion, and $77.3 billion in 1979, 1980, and 1981, respectively. The cumulative domestic increase is $127.9 billion, or 62 percent of the overall total. Thus, it is clear that the bulk of the oil price shock of 1979-1981 was within the scope of domestic policy.

The Cost of Decontrol

Apportioning the domestic price increases between general price policy (EPAA, EPCA and ECPA) and the June 1979 decontrol decision is less straightforward than deriving the total price increase due to domestic factors. The critical factor in estimating the cost of decontrol is the estimate of what prices would have been in the absence of decontrol. Once this baseline estimate is made, it is possible to project a total bill in the absence of decontrol. The difference between the projected bill with controls and the actual bill becomes the "cost" of decontrol. This also isolates the "cost" of the increase in

domestic prices due to the increased prices for oil which had been decontrolled prior to June 1979.

Unfortunately, the complexity of controls and the fact that about 30 percent of total domestic production had been decontrolled prior to June 1979 makes it difficult to project prices. The Joint Committee on Taxation (JCT) has made an estimate of the increase in gross revenues to oil producers resulting from decontrol of crude oil prices, based on a methodology similar to the one suggested above. 10/ That is, the JCT projects prices based on the mix of controlled and decontrolled oil and calculates the additional dollars paid to producers at the wellhead due to decontrol. The JCT estimate is used for analyzing policy decisions related to the Windfall Profit Tax.

The estimated costs of decontrol using the JCT method are $1.2 billion in 1979, $15.3 billion in 1980, and $52.2 billion projected for 1981 (see Table I-3). The cumulative total due to decontrol is $68.7 billion, or about one-third of the overall increase in the national oil bill.

It is apparent that there were dramatic price increases in other categories of oil as well. These amounted to $9 billion in 1979, $25.1 billion in 1980, and $25.1 billion projected for 1981. The cumulative total is $59.2 billion or about 28 percent of the overall increase in the oil bill.

TABLE I-3

INCREASE IN THE NATIONAL OIL BILL
APPORTIONED BY CAUSES 1/
($ Billion, Current)

Year	Total	Imported Costs	Domestic Costs		Earlier Price Policy
			Total	Due to Decontrol	
1979	28.3	18.0	10.2	1.2	9
1980	71.5	31.0	40.4	15.3	25.1
1981	106.9	29.6	77.3	52.2	25.1
	206.7	78.6	127.9	68.8	59.2

1/ See Table II-2 and Footnote 11.

NOTE: Numbers may not add due to rounding.

The increases in the national oil bill resulting from increases in prices of previously decontrolled oil are quite large. The JCT analysis implies a very rapid increase in prices due to general pricing policies which were in place before June 1979 decontrol. In 1979 and 1980 these exceeded 30 percent; in 1981, they projected stabilized prices. 11/ Since these estimates are far in excess of the general rate of inflation, a very large part of these increases represent domestic oil prices rising rapidly to match the increases in world prices. As noted above, these very rapid increases in price (and gains in producer revenues) are not considered part of the windfall stemming from decontrol, although they were reaped, in large measure, because domestic oil was running up to the politically influenced price of world oil.

Thus, the total energy price shock of $206.7 billion that occurred between 1979 and 1981 can be apportioned between three factors: foreign price increases (38 percent), June 1979 decontrol (33 percent), and earlier price policy decisions (28 percent). By any standards, this sum of money constituted a major transfer of resources. To put the figure in economic perspective, it represents almost 3 percent of the entire gross national product in 1979, 1980, and 1981 combined. To put it in an equity perspective, it represents a sum equal to about two-thirds of the combined Federal budget outlays in 1979, 1980, and 1981 for all public assistance, medical care, unemployment

insurance, and nutrition assistance programs added together. Given the magnitude of this transfer of wealth, the intensity of the concern expressed about the equity and economic impacts of the oil price shock seems quite reasonable. The remaining chapters of this study analyze various aspects of these equity impacts.

CHAPTER II. ESTIMATING THE BURDEN ON THE POOR

The rapid increase in oil prices produced a major transfer of financial resources from non-energy sectors into the energy sector. The impact of this transfer can be profound. At the most fundamental level, it constitutes a rapid and large loss of purchasing power for households and businesses. If one assumes that a significant part of the price increases are rapidly passed through to final consumers, a major economic burden comes to rest on households. This loss of purchasing power constitutes a major equity issue for society.

At the time of decontrol the equity impact and the particular burden it placed on the poor were recognized. 12/ A windfall profits tax was coupled with a commitment to offset the burden on the poor. 13/ This chapter examines the basis for that commitment and the actual impact of the oil price shock on the poor.

The Basis for the Commitment to Reducing the Burden on the Poor

There are two primary arguments for programs to alleviate the energy burdens placed on the poor by rising prices. The first is that the poor devote a disproportionate share of their income to

energy expenditures, and that as prices rise the disproportionate share increases rapidly. 14/ The empirical evidence on this point is compelling, although there is no single systematic data base for estimating the percentage of income devoted to energy expenditures (see Table II-1).

TABLE II-1

PERCENTAGE OF HOUSEHOLD INCOME SPENT ON ENERGY

	High Estimates					Low Estimates	
	1973	1975	1978	1979	1980	1979 e/	1981 f/
HOUSEHOLD FUELS							
Low Income							
Gas	5.9 a/	6.5 a/	8.9 a/	17-18 b/	n/a	8.6	n/a
Electric	5.2 a/	6.7 a/	8.2 a/	12 b/	n/a	10.1	n/a
Fuel Oil	n/a	n/a	n/a	29 b/	n/a	15.3	n/a
All Fuels	n/a	n/a	17.3-17.8 c/	n/a	21.8-23.3 c/	16.6	13.5
Median Income							
Gas	n/a	n/a	n/a	5 b/	n/a	2.0	n/a
Electric	n/a	n/a	n/a	3.4 b/	n/a	3.2	n/a
Fuel Oil	n/a	n/a	n/a	7 b/	n/a	3.6	n/a
All Fuels	4.0 d/	n/a	4-4.3 c/	4.7 c/	5.1-5.4 c/	4.2	4.2
GASOLINE							
Low Income	n/a	n/a	6.7 c/	9.8 c/	13.9 c/	n/a	7.3
Median Income	3.6 d/	n/a	5.2 c/	6.5 c/	8.1 c/	n/a	4.8

a/ Harold Beebout, Gerald Peabody and Pat Doyle, "The Distribution of Household Energy Expenditures and the Impact of High Prices," a paper prepared for High Energy Prices: Assessing the Burden, a Conference sponsored by Resources for the Future and The Brookings Institution, October 9-10, 1980 (Washington, D.C.).

b/ Community Sciences Administration, Too Cold...Too Dark, Washington, D.C., nd, p. 24.

c/ U.S. Department of Energy, Fuel Oil Marketing Advisory Committee, Low Income Energy Assistance Programs: A Profile of Need and Policy Options, Washington, D.C., July 1980.

d/ U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey: Interview Series 1972-1973, Report 455-4, Table 3.

e/ U.S. Department of Energy, Residential Energy Consumption Survey, Consumption and Expenditures, April 1978 through March 1979, Washington, D.C., July 1980, various tables.

f/ U.S. Department of Energy, Residential Energy Consumption Survey, 1979-1980 Consumption and Expenditures Part I: National Data, Washington, D.C., April 1981, various tables.

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All of the available data confirm the basic argument. The poor devote a larger percentage of income to energy expenditures than average households and the percentage increases more rapidly in periods when prices are rising. Moreover, all the data sources suggest that after the price shock the poor were devoting a percentage of their income to energy expenditures that was three to four times as large as the percentage of income that typical median income households devoted to energy expenditures. The data do not agree on the level of expenditures.

One set of estimates, which are referred to in Table II-1 as "high estimates," shows that throughout most of the 1970's median income households had been able to keep household energy expenditures close to 4 percent of their total income. After the 1979-1980 price shock, household energy expenditures increased to about 5 percent of the income of these households. In these estimates, compared to median income households, low income households devoted a much larger share of income to household energy expenditures prior to the price shock -- about 17 percent. Moreover, they have been less successful in holding household energy expenditures down as a percentage of total income. Since the shock, household expenditures have increased by 4 to 5 percentage points of income, reaching a total of 21 to 24 percent of income.

The second set of estimates, referred to in Table II-1 as "low estimates," shows household expenditures at a somewhat lower

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level -- in the 13-16 percent range for low income households and the 3-5 percent range for average income households. The basic patterns and relative relationships are the same, only the levels are lower.

Data on expenditures for gasoline, though less readily available, exhibit similar characteristics. Low income households spent more than median income households on gasoline as a percentage of income prior to the price shock and have been less able to hold their expenditures down as a percentage of income subsequent to the shock. One set of data, estimates which are referred to in Table II-1 as "high estimates", places the expenditures of low income households in the 13 percent range, while median income households are in the 8 percent range. The second set of date, estimates which are referred to in Table II-1 as "low estimates," shows low income households spending 7 percent of income on gasoline, while median income households spend 4 percent.

By 1981, expenditures on household energy and gasoline will probably be between one-quarter and one-third of the total household income of the poor. For median income households, the proportion spent on energy will be closer to one-tenth to one-seventh.

One explanation for this phenomenon identifies energy as a vital commodity for which substitution is difficult. 15/ In

fact, the poor do consume less absolute levels of energy, but they have particular difficulty reducing their consumption as prices rise. 17/ They are less able to reduce consumption through behavioral means (i.e., thermostat settings or elimination of unnecessary driving) since they have already cut back so far. They are less able to cut expenditures by switching to cheaper fuels or by investing in conservation (substituting capital for energy) because they lack the necessary capital resources.

Recognizing the fact that low income households would be particularly affected by rising energy prices, policymakers coupled decontrol with a windfall profits tax that earmarked certain funds for low income energy assistance. As noted above, the commitment to these programs was stated in several different contexts. In the conference report on the windfall profits tax, the commitment was defined as one-quarter of the projected revenues, or $56 billion, which would be used to assist the poor. The Conference Report clearly linked this sum to the increase in all energy prices.

Assessing the Burden of Rising Prices

A number of factors make it difficult to assess the specific burden placed on the poor by the increase in oil prices.

First, there are no accurate estimates of how much of the price increase observed at the wellhead or refinery gate is passed on to consumers, although the working assumption has been that, ultimately, all of it is passed through. 17/

Second, even with a simplifying assumption about pass-throughs, it is difficult to ascertain exactly how much oil the poor consume and, therefore, how much they have lost in purchasing power. Some data are available on which to base general estimates, but they lead only to rough estimates.

Third, even with an estimate of the burden placed on the poor in hand, it is not clear which part of that burden was to be offset by other policy decisions, such as using windfall profits tax revenues for low income assistance. Thus, since the precise intention of the commitment is not clear, it is difficult to assess how well the commitment has been fulfilled. As noted above, the Congressional commitment, which was the broadest, is clear. Here again, a variety of estimates can be made of the cost of rising prices on the poor. These estimates, based on different definitions of the burden, show the level of assistance necessary to offset the burden. These estimates of the burden can then be compared to the actual performance of the policy mechanisms put in place to offset the burden.

The Oil Consumption of the Poor

The first step is to ascertain how much of the burden falls on the poor. In the simplest sense (once one accepts the fact that 100 percent of price increases are passed through to consumers), the percentage of all oil consumed by the poor defines how much of the increase in the bill they bear.

Direct Oil Consumption

Based on several recent surveys it is possible to estimate the oil consumption of the poor.

A recent Department of Energy (DOE) study shows that the poor, who represent 16.6 percent of the population, consume about 12.3 percent of all home heating oil. 18/ Since heating oil represents about 5 percent of total petroleum products supplied in the United States, the poor consume, directly as heating oil, about 0.6 percent of all oil consumed in the country. 19/

Gasoline consumption is somewhat more difficult to calculate since little direct evidence on the usage of the poor is available. For purposes of the analysis, two estimates will be made -- a high and a low estimate. A 1977-1978 survey of driving patterns showed that those with incomes less than $5,000 drove, on average, 7,000 miles per year, while higher income groups drove considerably more (see Table II-2). 20/ Coupling the driving survey with the distribution of population by income

categories, it appears that the lowest income category accounted for about 10 percent of all miles driven in 1977-1978. 21/ Since low income individuals had slightly less efficient cars, it appears they consumed about 10.3 percent of all gasoline consumed in the household sector. 22/

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TABLE II-2

GASOLINE CONSUMPTION BY INCOME CATEGORY

Income	Miles Driven 1/	% of Population 2/	% of Miles Driven	% of Gallons Used-Household Sector 3/
Less than $5000	7000	14.4	10.0	10.3
$5000-$9000	9000	19.1	17.1	17.6
$10000-$14999	10450	19.1	19.9	20.4
$15000-$24000	10800	28.0	30.1	29.3
$25000 or more	18000	19.5	22.9	22.3

1/ Department of Transportation Nationwide Per Household Transportation Study, Vehicle Utilization Report No. 5, Washington, D.C., 1977.

2/ Department of Energy, Consumption Patterns of Household Vehicles June to August 1979, Washington, D.C., June 1980.

3/ Based on an estimated average of 14.6 miles per gallon for households with incomes below $15000 and 15.0 miles per gallon for households with incomes above $15000.

However, there are several problems with these numbers. First, the lowest income category is not entirely composed of poor people. Second, the poor do not fall only in the lowest income category. Most indications are that the poor consume somewhat less gasoline than the lowest income category. 23/ Therefore, the estimate of 10.3 percent will be utilized as a high estimate.

A low estimate can be derived from the consumption expenditure survey conducted in 1972-1973. 24/ The rate at which the lowest income category uses gasoline compared to heating oil (relative to the national average) was calculated. This survey shows that the lowest income category used 30 percent less gasoline than heating oil, relative to the national average. Thus, for a low estimate, it can be projected that the poor consume 7.3 percent of the total gasoline consumed. 25/

Assuming that 37 percent of total oil production is gasoline and that 80 percent of it is consumed in the household sector, we estimate that the gasoline consumed by the poor constitutes between 2.2 and 3.0 percent of all the oil consumed in the country. Adding together the consumption of heating oil and gasoline, we estimate that the poor consume directly between 2.8 and 3.4 percent of all oil consumed in the country (see Table II-3).

II

TABLE ~~III~~-3

THE OIL CONSUMPTION OF THE POOR
AS A PERCENTAGE OF ALL PETROLEUM CONSUMPTION

	Low Gasoline a/ Very Low Indirect	High Gasoline a/ Low Indirect	Low Gasoline a/ Proportionate Indirect	High Gasoline a/ Proportionate Indirect	CBO b/
Heating Oil	.6	.6	.6	.6	.9
Gasoline	2.2	3.0	2.2	3.0	2.0
Total Direct	2.8	3.6	2.3	3.6	2.9
Indirect	1.4	1.7	5.2	6.1	6.1
Total	4.2	5.3	8.0	9.7	9.0

a/ See text for discussion of the derivation of these estimates.
b/ Congressional Budget Office, The Decontrol of Domestic Oil Prices: An Overview (Washington, D.C., May 1979) derived from Table 13.

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Indirect Oil Consumption

Direct consumption of heating oil and gasoline constitutes only 42 percent of all oil consumption. The remainder is used to produce other goods and services. Households pay for the energy used to produce these goods and services in the prices of the goods and services. That is, they pay for the oil indirectly. Estimating the indirect energy consumption of the poor is difficult. It requires specifying the commodity basket of the poor, calculating the oil embodied in each commodity and summing to arrive at a total indirect oil consumption figure. One would then argue, under the 100 percent pass-through assumption, that increases in oil prices are passed on to consumers in the form of higher prices for commodities.

The simplest assumption here is that low income households consume oil indirectly at the same rate at which they consume it directly. For example, the low direct consumption estimate is that low income households consume about one-twelfth of the first 42 percent of the barrel. Therefore, they would consume about one-twelfth of the rest of the barrel. This would lead to an estimate of indirect consumption by the poor of 5.2 percent of all oil and a total direct plus indirect consumption of 8 percent of all oil.

Alternatively, the high estimate would be that the poor consume about one-ninth of all oil indirectly. This would lead

to a high estimate of indirect oil consumption of 6.3 percent and overall consumption of 9.7 percent of all oil.

The Congressional Budget Office used an approach similar to this in its estimate of the impact of decontrol. 26/ It assumed that indirect energy expenditures were distributed proportionately with income. It estimated that the poor consumed 2.9 percent of all oil directly and 6.1 percent indirectly. The total consumption estimated by CBO was 9 percent.

These approaches seriously underestimate the fact that the poor consume much less energy indirectly than the nonpoor. That is, they consume fewer commodities and less energy intensive commodities.

Several studies based on the 1972-1973 consumer expenditure survey have calculated the ratio of total energy expenditures to direct energy expenditures. 27/ These studies can be used to estimate the total oil consumption of the poor. The estimated ratios range from 1.49 to 1.63. That is, total energy expenditures are estimated to be between 1.49 and 1.63 times as large as direct energy expenditures. Utilizing these multiplication factors, one would estimate that the poor consume indirectly between 1.4 and 1.8 percent of all oil. Their total consumption would be between 4.2 and 5.1 percent of all oil.

The ratio of total energy consumption to direct is based on all forms of energy, not just oil, and it may seriously

underestimate the indirect oil consumption of the poor. Of special concern in this regard is the fact that the poor use nonvehicle transportation at a greater relative rate than the nonpoor. Thus, in 1972-1973 the lowest income category spent almost one-third as much on nonvehicle transportation as they did on gasoline. The national average expenditure on nonvehicle transportation was only 10 percent as much as the expenditure on gasoline. Of course, not all of the expense of nonvehicle transportation is related to oil costs. Nevertheless, the indirect oil consumption of the poor may be higher than estimates based on indirect energy consumption in general might indicate.

For purposes of the following analysis, the average of these estimates will be utilized. That average, which is 7.1 percent, is a much more conservative estimate than the 9 percent which was the basis of much policy decisionmaking at the time of decontrol.

The Loss of Purchasing Power Due to Rising Oil Prices

Utilizing the above estimates of the percentage of oil which the poor consume, it is possible to generate estimates of their loss of purchasing power due to rising oil prices. Further, it is possible to estimate the part of lost purchasing power atttributable to each of the components of the price increase.

In addition, several other relevant measures of the loss of purchasing power can be constructed. One such measure is the

loss of purchasing power over and above the rate of inflation. This measure is relevant if the commitment made to the poor is defined as offsetting all burdens -- domestic and OPEC related -- in excess of the rate of inflation. It also measures the "real" loss of purchasing power, i.e., the loss in constant, 1978 dollars.

A second relevant measure is the loss of purchasing power caused by domestically originated price increases in excess of the general rate of inflation. As noted above, in the face of rising import prices, policies could have been pursued to reduce the overall increase in prices by holding prices down on domestic crude. One such policy would have been to limit domestic price increases to the rate of inflation. This can be related to the commitment to the poor in the following manner: It represents what the government could have done to alleviate the burden on the poor through domestically related pricing decisions, but chose not to do, and could or should have done with other policies such as income assistance.

Table II-4 presents the aggregate loss of purchasing power and the loss of purchasing power by the poor. The midpoint estimate will be the focal point of discussion. The total loss of purchasing power by the poor due to the oil price shock has been $14.7 billion. The loss caused by domestic factors is $9.1 billion while the import related loss is $5.6 billion. The domestic loss can further be broken down as $4.9 billion due to

June 1979 decontrol and $4.2 billion due to prior price policy decisions.

TABLE II-4

THE LOSS OF PURCHASING POWER
DUE TO OIL PRICE INCREASES

Energy Price Increases	Estimated Loss of Purchasing Power ($ Billions)			
	All Households	Low Income Households		
		Low	Mid	High
Actual				
Total	206.7	10.5	14.7	18.6
Import Related	78.6	4.0	5.6	7.0
Domestically related	127.9	6.5	9.1	11.5
6/79 Decontrol	68.7	3.5	4.9	6.2
Prior Price Policy	59.2	3.0	4.2	5.3
Hypothetical				
"Real" Dollars Lost	163	8.3	11.6	14.6
Over and Above General Inflation Applied To Domestic Oil Only	109	5.2	7.3	9.2

Source: Table II-3 and Table III-3.

The hypothetical loss of purchasing power over and above the general rate of inflation applied to all categories of oil, i.e., the real dollar loss, is $163 billion in the aggregate and $11.6 billion for the poor. The hypothetical loss of purchasing power over and above the general rate of inflation applied only to domestic oil is $109 billion in the aggregate and $7.7 billion for the poor.

The loss of purchasing power per household for all households and for low income households only is reported in Table II-5. It is calculated both in dollars lost and as a percent of income.28/

Table II-5 illustrates the erosion of purchasing power suffered by the poor. In absolute dollars, between 1979 and 1981, the poor lost about 43 percent as much as the average income household ($1140 compared to $2667), but as a percentage of income the poor lost more than twice as much (8.9 percent compared to 4.2 percent). Domestic factors cost the poor about 5.6 percent of their income, while the June 1979 decontrol decision alone cost 3 percent. The magnitude of this loss of purchasing power suggests that the concern expressed about equity and about the burden placed on the poor has been well-founded. Almost 9 percent of the income of the typical poor household was consumed by oil price increases in the 1979-1981 period.

TABLE II-5

LOSS OF PURCHASING POWER PER HOUSEHOLD

	Dollars Lost 1979-1981		% of Income Lost 1979-1981	
	Natl. Avg. Household a/	Low Income Household a/ (mid-estimate)	Natl. Avg. Household a/	Low Income Household b/ (mid-estimate)
Actual				
Total	2667	1140	4.2	8.9
Import Related	1006	426	1.5	3.3
Domestically related	1644	713	2.6	5.6
6/79 Decontrol	885	380	1.4	3.0
Gen. Price Policy	759	326	1.2	2.6
Hypothetical "Real" Dollars Lost	2103	899	3.3	7.0
Over & Above the General Rate of Inflation Applied to Domestic Oil Only	1406	760	2.2	6.0

a/ Based on 77.5 million households.
b/ Based on 12.9 million households.

Source: Table II-4 for loss of purchasing power and Bureau of the Census, Money Income and Poverty Status of Families and Persons in the United States (current Population Reports Series P-60) various issues, for median income.

CHAPTER III. THE COMMITMENT TO ALLEVIATING THE BURDEN OF RISING ENERGY PRICES ON THE POOR

Introduction

This chapter estimates both the aggregate Federal expenditure on low income energy assistance programs as well as the per household benefits delivered in the 1979-1981 period. These estimates are then compared to the estimates of the burden on the poor developed in the previous chapter in order to assess the extent to which the Federal Government has succeeded in offsetting the effects of oil price increases on the poor.

Aggregate Outlays

Federal efforts to help low income people cope with rapidly rising energy prices began shortly after the 1973 oil embargo when the Office of Economic Opportunity (OEO) established a program providing low income households with weatherization services, other aids such as blankets and space heaters, and direct cash payments to households and to energy vendors. 29/ In 1975, the Community Services Administration (CSA) was formally authorized by Congress to operate a low income weatherization program. CSA's weatherization program was gradually taken over by DOE in 1977-1978. CSA also operated non-weatherization energy

assistance programs beginning in 1977, and these were eventually transferred to the Department of Health and Human Services (HHS) in 1980-1981.

The commitment of funds to energy assistance in the years prior to the 1979 energy price shock were small. Between 1973 and 1976, a total of less than $250 million was spent. In 1977 and 1978, about $300 million was spent each year. In fiscal years 1979, 1980, and 1981, appropriations for energy assistance programs in CSA, DOE, and HHS increased dramatically. In that three year period, about $4.23 billion was spent.

Weatherization Assistance Program: 1979-1981

The funding levels and average benefits of the DOE Weatherization Assistance Program are presented in Table III-1. Households are eligible for weatherization assistance if their income falls within 125 percent of the OMB poverty level, or if a member of the household is receiving SSI benefits. Total appropriations between 1979 and 1981 were $573 million; approximately 622,000 homes had been weatherized as of July 1981.

TABLE III-1

DOE WEATHERIZATION PROGRAM FUNDING & BENEFITS

	1979	1980	1981	Total
Appropriations (millions of $)	$199	$199	$175	$573
Cumulative # of homes weatherized	118,000	449,000 1/	622,000 2/	622,000

1/ Estimated
2/ As of 7/81

Source: U.S. Department of Energy, The Weatherization Assistance Program: Annual Report for 1980 (Washington, D.C., 1980) pp. 40-42, and telephone contact with DOE staff.

Non-Weatherization Assistance

The Community Services Administration and later the Department of Health and Human Services operated energy assistance programs in fiscal years 1979 through 1981, with total non-weatherization appropriations of $3.65 billion (see Table III-2).

Recipients of the low income energy assistance programs can be divided into two broad categories: Those who apply for and receive benefits on a case-by-case basis, and those who receive benefits automatically as part of an existing public assistance program such as SSI or food stamps. The appropriations by program in Table III-2 include funds for both categories of recipients, broken down by category of recipients.

TABLE III-2

ENERGY ASSISTANCE PROGRAMS - NON-WEATHERIZATION
1979-1981

Program	Appropriation	Eligibility
1979		
CSA - Crisis Intervention Program (application-based)	$200 M	125% OMB Poverty Level
1980		
CSA - Energy Crisis Assistance Program (application-based)	$400 M	125% OMB or SSI Recipient
HHS - Energy Allowance Program (Block Grants)	$800 M	125% OMB or BLS Standard or Program Recipients
HHS - SSI Energy Allowance Program (Automatic Payments)	$400 M	SSI Recipients
Total	$1.6 B	
1981		
Energy Assistance Block Grants (HHS)	$1.76 B	125% OMB or BLS Standard or Program Recipients
CSA - Energy Crisis Intervention Program (Application-based)	$89.4 M	125% OMB or SSI Recipients
Total	$1.85 B	

Source: Congressional Budget Office, Low Income Energy Assistance: Issues and Options (Washington, D.C., June, 1981) pp. 46-47, 52.

Under the CSA Crisis Intervention Programs, grants were provided to States and Community Action agencies for several forms of application-based emergency assistance, including cash and vendor payments, basic repairs, space heaters, blankets, etc. In addition to the $690 million earmarked for these programs directly, discretionary block grants were given to States which could divert funds to the CSA programs. CBO estimates that States diverted approximately $304 million to the CSA program, raising the CSA total to roughly $990 million, excluding 1981 block grant funds. 30/

In 1980 HHS allocated $400 million directly to SSI recipients, and States diverted another $248 million in HHS block funds to other public assistance recipients. 31/ Thus, a total of $648 million was provided in automatic payments to recipients of various public assistance programs, including SSI, AFDC and food stamps. CBO estimates that another $248 million will be used in programs devised at the State level. Detailed evaluation of these State-developed programs is not available.

The 1981 low income energy assistance program involves $1.76 billion in block grants to States and territories ($98.4 million appropriated to CSA in 1981 is included in the above CSA discussion). States have the discretion to allocate funds on an application basis or through automatic payments to public assistance recipients, although it is not possible to project the distribution of block grant expenditures. Eligibility may be

determined by program recipiency, the BLS Lower Living Standard, or 125 percent of the OMB Poverty Level.

For FY 1982, the Reagan Administration has proposed abolishing the energy impact assistance program. Under its proposal, the energy assistance block grant would be folded into a comprehensive block grant to be administered by the States. Although the authority for administering the program was transferred from DOE to the Department of Health and Human Services, the DOE funds were not. This produced an effective reduction in funding of about 25 percent. It appears that Congress may not accept these cuts, but final action is not yet certain.

Average Household Benefits

The CBO has estimated the number of recipients and average payment per recipient resulting from 1980 and 1981 energy assistance programs (see Table III-3). According to CBO's estimates, the total non-weatherization appropriations in 1980 will reach a total of 9.8 million households, with an implied average payment of $135. The 1981 program is projected to reach 10 million households with an average payment of $160.

TABLE III-3

AVERAGE BENEFITS & ESTIMATED RECIPIENTS
ENERGY ASSISTANCE PROGRAMS
1979-1981

	Households (millions $)	Benefits	
1979			
CSA - Crisis Intervention Program	n/a	n/a	
1980			
CSA - Energy Crisis Assistance Program*	$ 2.4	$218	
HHS - Energy Allowance Program*	$ 3.6	$121	
HHS - SSI Energy	$ 3.8	$ 97	
Total	$ 9.8	$135	= Implicit Avg. Payment
1981			
HHS - Energy Assistance Block Grants	$10	$160	
CSA - Energy Crisis Intervention Program			

* Reflect diversion of funds by States from EAP Program to ECAP Program.

Source: Congressional Budget Office, Low Income Energy Assistance: Issues and Options (Washington, D.C., June, 1981) pp. 46-47, 52.

Assessing the Commitment

Direct Assistance

If the estimate of the burden that rising energy prices placed on the poor (Tables II-3 and II-4 in Chapter II) is compared to the Federal expenditures on energy assistance programs, it becomes clear that the assistance levels have not offset the increased living costs caused by price increases. The midpoint estimate of the loss of purchasing power by the poor between 1979 and 1981 was $14.7 billion. The total appropriations for assistance in that period were only $4.2 billion and the actual benefits delivered were probably closer to $3.6 billion. 32/ The loss of purchasing power which has not been offset by direct assistance is about $11 billion, or about 6 percent of the total income of the poor over the two year period (see Table III-4). In other words, 76 percent of the loss of purchasing power has not been offset by direct assistance. The loss of real purchasing power -- adjusted for inflation -- was $11.6 billion and the loss of purchasing power not offset by direct assistance is about $7.3 billion.

The loss of purchasing power due to all domestic factors was $9.1 billion, so that the loss of purchasing power due to domestic factors net of direct assistance is $5.5 billion or about 60 percent.

TABLE III-4

COMPARISON OF LOSS OF PURCHASING POWER
AND
DELIVERED ENERGY ASSISTANCE LEVELS

	Loss	Direct Assistance	Loss Net of Direct Assistance		Indirect Assistance	Loss Net of All Assistance	
	$ Billion	$ Billion	$ Billion	% of Loss Not Offset	$ Billion	$ Billion	% of Loss Not Offset
Total Loss of Purchasing Power							
Current $	14.7	3.6	11.1	76	1.8	9.3	63
1978 $	11.6	2.9	8.7	76	1.4	7.3	63
Loss of Purchasing Power Caused by Domestic Oil Price Increases							
Current $	9.1	3.6	5.5	60	1.8	3.7	41
1978 $	7.2	2.9	4.3	60	1.4	2.9	41

Source: See earlier discussions in Chapters I and II.

Indirect Assistance Through Indexing
of Non-Energy Transfer Payments

It is frequently argued that part of the burden placed on the poor by rising energy prices is offset by the fact that some of the income of the poor is automatically indexed to inflation. That is, some income transfer programs are indexed to the Consumer Price Index (CPI). Therefore, to some extent benefits are increased to reflect rising energy prices. While this is correct conceptually, the magnitude of this increment has been greatly overstated.

There are three reasons why the magnitude has been overstated. First, only part of the income of the poor is indexed. There are various estimates of the share indexed, but in general it would appear to be about 40 percent. 33/

Second, since 60 percent of the aggregate income of the poor is earned, it may very well be that this non-indexed portion is eroded more by energy induced inflation than the income of average households. That is, when economic activity is reduced, it is the earned income of the poor that suffers first and most. 34/

Third, the CPI weights energy according to its importance in the commodity basket of the average family, not the poor family. It has been shown above that energy is a much larger percentage

of the commodity basket of the poor. Thus, CPI indexed transfer programs tend to seriously underindex the transfer payments with respect to energy and therefore undercompensate the poor for their loss of purchasing power due to energy induced inflation.

The available evidence suggests that these three factors combined reduce the "advantages" that might have flowed from CPI indexed transfer programs. In the aggregate, the income of the poor did not rise as quickly as the income of median income households. In the aggregate, the percentage of income that the poor were forced to devote to energy increased more rapidly than that of median income households.

One way to consider the issue of indexing is to estimate what the income of the poor would have been if transfer payments had not been indexed to energy prices. Assuming that transfer payments represent 40 percent of the income of the poor and that transfer payment programs had been indexed only to non-energy items, the poor would have received $19 less in income per household in 1979, $51 less in 1980, and $70 less in 1981.

In the aggregate, the value of assistance delivered between 1979 and 1981 through the indexation of transfer payments to energy prices is about $1.8 billion (current) and $1.4 billion (real). Thus, even taking these payments into account, almost two-thirds of the total loss of purchasing power and 42 percent

of the domestically caused loss of purchasing power has not been offset by assistance.

To put these numbers in perspective, without transfer payments indexed to energy prices the poor would have lost 6.6 percent of their income, net of direct assistance. With transfer payments they actually lost 6.5 percent of their income. The typical median income family lost only 4.2 percent of their income. Thus, the poor lost almost 1.5 times as much of their income as typical median income families -- even with all forms of assistance counted.

Given this evidence, it is clear that indexed transfer payments, or any other transfer payments, do not fulfill the special commitment of alleviating the burden placed on the poor through increased energy prices. Without transfers, the poor would have fared even worse compared to the average household. As a result of the energy price shock, even with the transfer payments, the poor were still much worse off.

In summary, when assessing whether the commitment to alleviate the burden on the poor has been fulfilled, it makes little real difference whether indexed programs are included. Even with indexed programs and other programs in place, the poor have fared much worse than other income groups in the wake of the oil price shock of 1979-1981.

FOOTNOTES

1/ The instability in the market was not only a matter of price. Structural changes were also occurring. Greater control over the production and distribution of oil was seized by the producing country governments and they moved into downstream operations. Trading companies, national oil companies and independents became more prominent in acquiring oil. The price structure became more complex. Further, increases in revenues gave producers greater discretion in making decisions about prices, production, distribution, terms and downstream operations. (See Thomas L. Neff, "The Changing World Oil Market," Energy and Security, David A. Deese and Joseph S. Nye, eds. (Cambridge: Ballinger, 1981).

2/ U.S. Department of Energy, Monthly Energy Review, (Washington, D.C., March 1980), p. 28. Hereafter referred to as MER.

3/ Congressional Budget Office, The Decontrol of Domestic Oil Prices: An Overview (Washington, D.C., May 1979 , pp. 5-9. Hereafter referred to as CBO, May 1979.

4/ Crude Oil Windfall Profits Tax Act of 1980, Conference Report, No. 96-8179, U.S. House of Representatives, March 7, 1980, p. 29. Hereafter referred to as WPT, Conference Report.

5/ CBO, May 1979, takes this approach. The original White House Fact Sheet on the Windfall Profits Tax, dated April 26, 1979, mentions only decontrol.

6/ Statements made after the initial White House Fact Sheet, e.g., U.S. Department of Health, Education and Welfare (HEW) Memo: President Carter's Proposal for Low Income Energy Assistance (Washington, D.C., September 12, 1979) speaks of decontrol and OPEC oil increases as the burden to be offset.

7/ WPT, Conference Report, pp. 64-65, explicitly identifies all rising energy costs as the burden to be offset.

8/ The speed with which events unfolded may have made it difficult for policy to be adjusted to the price increases. The CBO analysis of May, 1979, proved obsolete before the policy of decontrol was ever implemented. Within a year, CBO was forced to more than double its estimate of the negative impact. See, Letter from Alice Rivlin to Edward M. Kennedy, Impact of Energy Prices and Inflation on American Families, hearing before the Joint Economic Committee, Congress of the United States, July 8, 1980 (U.S. Government Printing Office: Washington, D.C., 1981), pp. 72-74.

9/ Refiner Acquisition costs provide the most consistent basis within the available data to estimate the increase in the oil bill.

10/ Joint Committee on Taxation, February 24, 1980. Cited in "The 1981 Economic Report of the President, Hearings before the Joint Economic Committee," Part 3, p. 230.

11/ An alternative estimate of the cost of decontrol was made using a simple methodology: (1) Simple linear projections of the change in lower tier and upper tier oil as a percentage of total domestic production were made. (2) The maximum price increases allowable under controls for these two categories of oil were estimated. (3) The actual world price of oil was used for previously decontrolled oil. (4) An estimate of what the oil bill would have been was then made. The cost of decontrol, using this methodology, was only about $40 billion. This method probably overestimates the importance of uncontrolled oil than would have actually occurred. An estimate made by the Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce of the U.S. House of Representatives, "The Energy Inflation Crisis: Sources, Consequences, and Policy Options," (U.S. Government Printing Office, Washington, D.C., December 1980) indicates that the Joint Committee on Taxation (JCT) estimates (which, of necessity, were based on early price projections) are on the high side. However, because of the greater sophistication of the JCT model, its estimates will be used.

12/ CBO, May 1979.

13/ WPT, Conference Report.

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14/ CBO, May 1979. Chapter VII analyzes this issue and WPT, Conference Report, pp. 64-65, makes reference to it. A more fully developed treatment is given in the Fuel Oil Marketing Advisory Committee, Low Income Energy Assistance Programs: A Profile of Needs and Policy Options, U.S. Department of Energy, July 1979 and July 1980. Hereafter referred to as FOMAC.

15/ FOMAC gives a general discussion of this argument. For detailed mathematical discussions see Harold Beebout, Gerald Peabody, and Pat Doyle, "The Distribution of Household Energy Expenditures and the Impact of High Prices," and Mark Cooper "Conceptualizing and Measuring the Burden of High Energy Prices: Comments on the Distribution of Household Energy Expenditures and the Impact of High Prices," both in High Energy Costs: Assessing the Burden, a conference organized by Resources for the Future and The Brookings Institution, October 9-10, 1980 (Washington, D.C.).

16/ FOMAC and Cooper, "Conceptualizing...," Ibid., stress this point.

17/ CBO, May 1979, pp. 60-65.

18/ U.S. Department of Energy, Residential Energy Consumption Survey: 1979-80 Consumption Expenditures, April 1981, Table 1. Hereafter referred to as RECS.

19/ This percentage is estimated by dividing the total fuel oil consumption in the residential sector in 1979 (RECS, p. 11) by the total petroleum consumption in the United States (MER, August 1980).

20/ Department of Transportation, Nationwide Per Household Transportation Study: Vehicle Utilization Report No. 5 Washington, D.C., 1977).

21/ RECS gives an estimate of the distribution of households by income categories. Because this was the source for several key elements in the analysis (i.e., heating oil consumption, gasoline mileage for automobiles), it was used as the basic data source for the distribution of population into income categories. The Congressional Budget Office, Low Income Energy Assistance: Issues and Options (June 1981), hereafter referred to as CBO, June 1981, appears to have relied heavily on the RECS as well. Thus it provides a systematic basis for comparing estimates of the oil consumption of low income households.

22/ U.S. Department of Energy, Residential Energy Consumption Survey: Consumption Patterns of Household Vehicles, June to August 1979 (Washington, D.C., June 1980) shows families with incomes below $15,000 got an average of 14.6 miles to the gallon while those with incomes above $15,000 got an average of 15.0 miles to the gallon.

23/ This becomes readily apparent by comparing the estimate of gasoline consumption given for the low income population utilized by FOMAC (1979 and 1980) and CBO, May 1979 and June 1981.

24/ U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey: Interview Series, 1972-1973, Report 455-4 (1977), Table 3.

25/ The low estimate places gasoline consumption at about 340 gallons per year in 1977-78. The implicit estimate in FOMAC, 1979, for low income households in 1978 is 350 gallons per year.

26/ CBO, June 1981, p. 14 seems to underestimate the importance of the very large difference in indirect energy expenditures between the low income and average households.

27/ See Beebout, et. al., pp 40-43 for a discussion of these studies. CBO, May 1979, p. 67.

28/ The RECS estimate of households at or below 125 percent of poverty level is 12.9 million households.

29/ U.S. Department of Energy, Status of the Weatherization Assistance Program: Annual Report for 1979 (Washington, D.C., 1980), pp. 2-3.

30/ CBO, June 1981, p. 47.

31/ Ibid.

32/ Although total appropriations were $4.2 billion, actual delivered benefits were lower (around $3.6 billion) since administrative costs must be deducted, and funds may not be completely expended. CBO has estimated the actual delivered benefits for 1980 and 1981 non-weatherization programs, totaling roughly $2.9 billion compared to appropriations of $3.45 billion (see CBO, June 1981, p. 50). CBO estimates that other application-based programs have had administrative costs averaging 10 percent. Thus, for the 1979 CSA Crisis Intervention Program we assume that 90 percent of the $200 million expended by CSA, or $180 million, was delivered to recipients. For DOE's Weatherization Assistance Program, administrative expenses are limited by Federal law to 7.5 percent. With total expenditures from 1979 through July 1981 at $433 million, we can project expenditures of $539 million by year-end based on the last year. At 7.5 percent administrative costs, total delivered benefits would be roughly $501 million through 1981.

33/ CBO, June 1981, pp. 15-16 uses this estimate. It is important to note that such an aggregate number is arrived at by mixing two very different populations. Those households which are actually enrolled in incomes transfer programs generally receive 75 to 80 percent of their incomes from such programs. However, about half of those eligible for the programs are not enrolled. Thus, only 40 percent of the aggregate income received by all eligible households is derived from such programs.

34/ Congressional Budget Office, Indexing with the Consumer Price Index: Problems and Alternatives (Washington, D.C., June 1981), Appendix B, shows the failure of the income of low income households to keep up. Among multiperson families, the total income and the earnings of AFDC, SSI and social security recipients increased less between 1976 and 1980 than the income of all multiperson families. For unrelated individuals, the total income and earnings of social security recipients and the earnings of SSI recipients increased less than all unrelated individuals.

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